Supplemental Environmental Assessment
to the
Valley County Wind Energy Project
June 2006 Environmental Assessment

Introduction:

The Bureau of Land Management (BLM) prepared a Programmatic EIS to address wind energy development on public lands in 2005. In June 2006, BLM, the Western Area Power Administration (WAPA), Montana Department of Environmental Quality (DEQ) and the Montana Department of Natural Recourses and Conservation (DNRC) completed an Environmental Assessment (EA) that tiered from the Programmatic EIS. This EA evaluated the potential environmental impacts of a 500 MW wind farm, 31 miles of 230 kV transmission line and an access road proposed by Wind Hunter, LLC in northern Valley County, Montana. Public comments on the 500 MW proposal showed broad local support, however, there were a number of concerns expressed including the impact to the adjacent Bitter Creek Wilderness Study Area: impacts to grasslands, visual, and cultural features: and feasibility of accommodating such a large project on the transmission grid.

Wind Hunter, LLC has submitted a revised proposal to reduce the size of the proposed Valley County Wind Energy Project (VCWEP) wind farm from 500 MW to 170 MW, and to reduce the related transmission line from a 230 kV to a 69 kV.

The modified proposal is to construct and maintain a 170 MW wind farm including a one-mile access road on BLM.. A total of 114 turbines will be placed on 6,756 acres of a combination of private, state, and BLM administered land. The construction of the wind farm would begin in 2008.

As a result of these changes, the proposed facility no longer falls under the regulation of the Montana Major Facilities Siting Act and DEQ has withdrawn from the Environmental Assessment process. The MT DNRC is now the lead State agency.

Western participated as a cooperating agency in the development of the Environmental Assessment for the VCWEP. However, Western did not participate in the development of this Supplemental EA due to the expiration of a construction agreement with the wind project developer, Wind Hunter. Upon execution of a new agreement, Western will revisit its obligations under the National Environmental Policy Act and take actions to ensure its obligations are met before authorizing any actions related to the proposed wind project. Western has the lead for federal agency compliance with the National Historic Preservation Act for the project; the DNRC must comply with the mandates of the State Antiquities Act. .

This supplemental EA uses the analysis of the larger project (June 2006 EA) to determine potential environmental impacts of the scaled down project. The modified proposal is within the context and scope of the June 2006 EA that described a 500 MW farm and a 230 kV transmission line. The revised proposal is within the original footprint area of the 500 MW farm. All anticipated consequences to the human environment are expected to remain the same or to decrease in magnitude with respect to the original proposal. Its intent is to be used in conjunction with the June 2006 EA.

The modified proposed 170 MW farm has three areas of substantially different factors as compared to the original 500 MW farm. The modified proposal will:

1. Relocate the towers on federal, and state lands approximately 1 mile away from the Bitter Creek Wilderness Study Area;
2. Relocate the wind farm away from known big game wintering habitat;
3. Concentrate towers primarily on private land.

Objectives:

The following are the respective agency objectives:

BLM:
Objective 1: Meet goals of the National Energy Policy and BLM's Wind Energy Development Program.

Objective 2: Minimize environmental and socio-cultural impacts.

DNRC:
Objective 1: Lease the right to utilize state land for the production of wind energy and generate the maximum monetary return to the common school trust.

Objective 2: Manage the state rangeland for the desired future condition characterized by a healthy native plant and animal community.

Modified Proposal:

The Supplemental EA is considering two action alternatives and a no action alternative. The action alternatives consist of the construction and maintenance of a 170 MW wind farm and two alternative transmission routes, Transmission Route C and Transmission Route A. The no action alternative would have no construction taking place.

The Alternatives being considered are:

Proposed Action

At full build-out, the wind farm would contain 114 1.5 MW General Electric (or equivalent) wind turbines, generating a total of up to 170 MW, in an area encompassing 6,756 acres. The wind farm would be constructed starting in 2008 (see map).

The VCWEP would occupy 1,693 acres of BLM land with 28 turbines, 647 acres of state land with 19 turbines, and 4,416 acres of private land with 67 turbines (Table 1). The number of turbines by land ownership could vary slightly when final site planning is completed.

Table 1: **Acres of Temporary and Permanent Ground Disturbance (Acres) by Jurisdiction**

	BLM Land			**State of Montana Land**			**Private Land**		
Number of Turbines	28			19			67		
Acres	1,693			647			4,416		
	Temp	**Perm.**	**Total**	**Temp.**	**Perm.**	**Total**	**Temp.**	**Perm.**	**Total**
O&M Building	0	0	**0**	0	0	**0**	2.0	2.0	**4.0**
Collector Substation	0	0	**0**	0	0	**0**	1.0	2.0	**3.0**
Collector System	5.6	0	**5.6**	2.8	0	**2.8**	14.4	0	**14.4**
New Access Road	3.3	2.2	**5.5**	0	0	**0**	5.4	3.6	**9.0**
Internal Road Network	6.6	11.9	**18.5**	3.3	5.9	**9.2**	17.0	30.7	**47.7**
Turbine String Turnaround Areas	0.8	0	**0.8**	0	0	**0**	6.8	0	**6.8**
Wind Turbine Foundations	0	0.1	**0.1**	0	0.1	**0.1**	0	0.2	**0.2**
Pad-Mounted Transformers	0	0.1	**0.1**	0	0.1	**0.1**	0	0.1	**0.1**
Turbine Work Areas/ Material Staging	28.0	0	**28.0**	19.0	0	**19.0**	67.0	0	**67.0**
TOTAL	**44.3**	**14.3**	**58.6**	**25.1**	**6.1**	**31.2**	**113.6**	**38.6**	**152.2**

All other wind farm construction and maintenance details outlined in section 2.3.2 of the June 2006 EA remain the same.

Transmission Lines: Two transmission line routes are being considered in order to transfer the energy generated from the wind farm to the Fort Peck to Great Falls transmission line. These routes are Transmission Route C (preferred) and Transmission Route A (see map)**.**
The design characteristics of the modified proposed 69 kV transmission line, compared to the 230 kV transmission line, are generally the same as reported in the June 2006 EA (see Table 2). The only change from the description of the transmission line alternatives in the June 2006 EA relates to the decrease in transmission capacity from 230 kV to the 69 kV.

Table 2 Design Characteristics of 69kV and 230kV Transmission Lines

	69kV		230kV	
Feature	**Wood Pole, H-Frame**	**Light Duty Steel, Single Pole**	**Wood Pole, H-Frame**	**Light Duty Steel, Single Pole**
Structure Height	60 to 65 feet	80 to 90 feet	65 to 75 feet	90 to 100 feet
Minimum Ground Clearance of Conductor	26 feet	26 feet	26 feet	26 feet
Typical Span Length	850 feet	700 feet	850 feet	700 feet
Number of Structures per Mile	6 to 7	7 to 8	6 to 7	7 to 8
Right-of-Way Width	100 feet	80 feet	110 feet	80 feet
Structure Work Areas	2-Pole Tangent: 7,500 square feet 3-Pole Dead End: 40,000 square feet	7,500 square feet	2-Pole Tangent: 7,500 square feet 3-Pole Dead End: 40,000 square feet	7,500 square feet
Structure Base	100 square feet	9 square feet	100 square feet	9 square feet
Permanent Ground Disturbance per Structure	6 square feet	4 square feet	6 square feet	4 square feet
Material Laydown, Storage Yard	One 5-to-10-acre site for entire transmission line.	One 5-to-10-acre site for entire transmission line.	One 5-to-10-acre site for entire transmission line.	One 5-to-10-acre site for entire transmission line.
Pulling/Tensioning Sites	One 0.7-acre site every 2 miles	One 0.7-acre site every 2 miles	One 0.7-acre site every 2 miles	One 0.7-acre site every 2 miles
Access Road Width	14 feet	14 feet	14 feet	14 feet

Transmission Route C. Preferred.

A 34.1-mile 69 kV transmission line would be constructed from the wind farm collector substation on the proposed wind farm to interconnect at a new station that will be located near the existing Antelope Creek Substation (see Map).

The design of Transmission Route C is depicted in the June 2006 EA.

The predicted cost of constructing the smaller transmission line (69 kV) is anticipated to be 6.7 million to 7.8 million dollars (Table 3).

Table 3 Estimated Construction Costs of Transmission Routes

	Estimated Costs (in millions)	
	69kV	**230kV**
Transmission Route C (34.1 miles)		
Capital Cost	$3.2M to $3.7M	$4.1M to $4.7M
Labor Cost	$3.2M to $3.7M	$4.1M to $4.7M
Mitigation Cost	$0.3M to $0.4M	$0.4M to $0.5M
Total Cost (Route C)	$6.7M to $7.8M	$8.6M to $9.9M
Transmission Route A (41.5 miles)		
Capital Cost	$3.9M to $4.5M	$5.0M to $5.7M
Labor Cost	$3.9M to $4.5M	$5.0M to $5.7M
Mitigation Cost	$0.4M to $0.5M	$0.5M to $0.6M
Total Cost (Route A)	$8.2M to $9.5M	$10.5M to $12.0M

Construction techniques and maintenance are depicted in the June 2006, EA.

Transmission Route A.

A 41.5-mile 69 kV transmission line would be constructed from the wind farm collector substation on the proposed wind farm to interconnect at a new station that will be located near the existing Antelope Creek Substation (see map). The additional length of the transmission route is due to the location of the transmission line adjacent to existing state Highway 24.

The predicted cost of constructing the smaller transmission line (69 kV) is anticipated to be 8.2 million to 9.5 million dollars (Table 3).

Construction techniques and maintenance are depicted in the June 2006 EA.

No Action Alternative—No changes to this alternative.

Environmental Consequences - The "mitigation measures" cited in each environmental category refer to the measures listed in Appendix A of the June, 2006 EA.

Land Use:

Livestock Grazing: With careful design, siting, and implementation of "Best Management Practice" and application of the mitigation measures, no long-term adverse impacts are expected to occur to livestock and grazing use. Cattle and other livestock would temporarily be removed from the areas during project construction and decommissioning; but grazing use would continue around wind farm facilities and the transmission line during operation. There would be a permanent loss of vegetation on 14.3 acres of BLM land and 6.1 acres of state DNRC land (total of 5 Animal Unit Months (AUMs)). This is not expected to be a significant amount that would require adjustments to carrying capacity and/or to federal and state grazing permits.

Rights-of-Way (ROWs): Existing ROW facilities, including the Northern Border Pipeline Company's 42-inch natural gas pipeline and the Williston Basin Interstate Pipeline Company's 6-inch natural gas pipeline are not expected to be adversely affected by construction, operation, maintenance and decommissioning activities because of coordination with those companies and with careful design, siting, and implementation of "Best Management Practice" and application of the mitigation measures.

Minerals: With careful design, siting, and implementation of "Best Management Practice" and application of the mitigation measures, no long-term adverse impacts are expected to occur to management of minerals. The VCWEP is not expected to impede mineral exploration and development, nor adversely impact existing and/or future mineral leases.

The scaled-back wind farm project proposal will utilize 34% of the lands initially identified (see Table 4).

Table 4. Agricultural Land (Dryland Cultivated) and Non-irrigated Pasture/Rangeland in the Wind Farm Area

Wind Farm Proposal	Agricultural Land (Dryland Cultivated) (acres)	Non-irrigated Pasture/Rangeland (acres)	Total (acres)
500MW Wind Farm Proposal	1,199	18,921	20,120
170MW Wind Farm Proposal	1,085	5,671	6,756

Recreation/Access: With careful design, siting, and implementation of "Best Management Practice" and application of the mitigation measures, no long-term adverse impacts are expected

to occur to recreational uses, use patterns, and access. There would be a temporary displacement of dispersed recreation activity both on-site and off-site on BLM and State land during construction, and decommissioning. Direct construction and decommissioning impacts (construction and use of roads, material lay down areas, and ground disturbance) which could affect the use and enjoyment of activities such as hunting, hiking, and wildlife watching, are anticipated to be moderate, but temporary. Most uses would resume during operation of the wind farm and transmission line, and few, if any, restrictions on recreational activities are expected.

Wilderness/WSA/ACEC: The VCWEP, as scaled back, is not expected to degrade or impair the wilderness characteristics of the Bitter Creek WSA for preservation. There could be short-term, temporary impacts to solitude during construction and operation due to construction-related noise, dust, and visual impacts. Also, lights (FAA safety requirement) on the perimeter wind towers may affect solitude to a small degree. Based on an assessment of wind turbine visibility, wind turbine noise, and traffic, the operation and maintenance of the wind farm is not expected to change the WSA's suitability for wilderness designation by Congress, and/or designation/ management as an ACEC.

Transportation: With careful design, siting, and implementation of "Best Management Practice" and with application of the mitigation measures, no long-term adverse impacts are expected to occur to transportation. There would be short-term, temporary impacts to use of roads during the construction and decommissioning stages, and some traffic delay to accommodate material transport. In addition to construction traffic, there could be some increased use of roads associated with sightseers curious about the VCWEP. With exception to the new access road into the wind farm site, the VCWEP is not expected to alter public access into the area nor use of existing roads during operation. Direct and indirect impacts associated with transmission line construction would be short-term and are not expected to cause major traffic delays or road closures.

Visual Resources: With careful design, siting, and implementation of "Best Management Practice" and with application of the mitigation measures, no long-term adverse impacts are expected to occur to visual resources. As the majority of the wind farm would be situated on private lands, there will be some portions of the wind farm (turbines) that could be seen from the WSA, but this has been minimized with scaling back the project placement of towers farther from the rims at the eastern edge of the WSA. None of the facilities would be placed on BLM lands managed as Visual Resource Management (VRM) Class 1. The portions proposed on public land managed by BLM would be located on Class IV lands, which would not limit development. During operation, there is potential that lights (FAA safety requirement) on the perimeter wind towers may be a high contrast to the night sky to some viewers; and light and glare from the wind turbines and associated facilities would be produced that may be of concern to some viewers.

The Bitter Creek WSA Wildlife Viewing Area is within the WSA and comprises a trail system along the rim. Trail users would see some towers when looking toward the VCWEP area.

Socioeconomics and Public Services: A positive economic benefit to the local economy is expected with employment of workers during the construction and operation and from property taxes paid to the Valley County. BLM and the DNRC would receive rent and royalties for use of the lands.

Environmental Justice: No environmental justice impacts are expected since most of the VCWEP area is sparsely inhabited. It is possible that impacts on Traditional Cultural Properties (TCPs) could disproportionately affect Native Americans concerned about these cultural resources if any are encountered during construction of the project. With careful design, siting, and implementation of "Best Management Practice" and with application of the mitigation measures and/or avoidance of TCP sites, no long-term adverse impacts are expected to occur.

Biological Resources

Wildlife**:** Wind Hunter has committed to development of a comprehensive wildlife study plan to be developed and implemented in coordination with USFWS, BLM, and the MDFWP (appendix A, page A-7, item 30 of the June 2006 EA). The effects upon wildlife associated with construction, operation, maintenance and decommissioning of the wind farm and power line would include mortality, temporary displacement, habitat loss and fragmentation. Potential effects would be reduced given the small area of disturbance, the limited duration of construction and monitoring of species and habitat with pre and post-construction surveys. With careful design, siting, and implementation of "Best Management Practice" and with application of the mitigation measures, no long-term adverse impacts are expected to occur to wildlife resources. The projected losses of species and habitat are not likely to contribute towards a trend for federal listing of any species or cause a loss of viability to the species.

Birds: The VCWEP area is not considered a migratory corridor of continental or regional significance. Construction activities could affect avian species through mortality (destruction of eggs, abandonment of active nests), habitat alteration or loss, and disturbance. Loss during construction is expected to be minimal due to the small amount of area being disturbed. Although operation and maintenance is expected to cause some bird mortality (see Table 5), primarily through collision with turbines, this will be minimized to the extent possible with application of mitigation measures and as a result of the scaled back project and placement of towers farther away from the rim edges.

Table 5 Estimates of Annual Avian Mortality Resulting from Turbine Collisions

Proposal	Number of Turbines	Passerines	Raptors
500MW Wind Farm Proposal	334	402-600	10

170MW Wind Farm Proposal	114	137-205	3

Wind farm construction and operation could cause habitat fragmentation and species displacement (see Table 6). There will be a loss of 885 acres of habitat.

Table 6 Area of Potential Avian Grassland Habitat Displacement

Proposal	Acres	Number of Turbines	Area of Displacement (acres) *	Proportion of Total Acreage
500MW Wind Farm Proposal	20,120	334	2,592	13%
170MW Wind Farm Proposal	6,756	114	885	13%

* Based on 100 meters displacement from all habitats around each tower.

The VCWEP area is suitable Sharp-tail grouse habitat and one active lek site was found. A survey will be done prior to construction of the wind farm and transmission line to determine the presence of new leks. If found, no construction activity will occur between March 1 and May 1 to minimize impact to leks and breeding individuals; and nests will be marked with a 300 meter avoidance area at other times. Operation and maintenance activities are not expected to disrupt or cause adverse impact to Sharp-tail grouse and/or its habitat. Since transmission line structures can be used as perches by raptors, perch prevention devices will be installed on the transmission line structures to minimize the potential for increased predation on Sharp-tail grouse.

The VCWEP area and transmission line route provide suitable habitat for raptors. Construction and decommissioning activity would result in the loss of a small amount of potential foraging habitat and temporary displacement of individuals in the immediate area of the activity. Pre-construction raptor nest surveys will be conducted to identify nests to avoid; a post-construction mortality monitoring program will be implemented to assess raptor mortality.

Bats: Bat surveys indicate limited presence and use of the wind farm area and there are no known roosts or hibernacula within or adjacent to the area. If present, construction activity could affect bats through direct mortality, habitat loss and fragmentation, and disturbance effects. The project would most likely result in low impact on bats (see Table 7).

Table 7 Estimated Annual Bat Mortality Resulting from Turbine Collisions

Proposal	Number of Turbines	Estimated Annual Bat Fatalities
500MW Wind Farm Proposal	334	501
170MW Wind Farm Proposal	114	170

Big Game: Construction activities could affect big game as a result of mortality, habitat loss, and disturbance effects. Wildlife most likely will be temporarily displaced during construction and decommissioning, but will return to the area during operation of the wind farm. No big game mortality is anticipated, but a post-construction wildlife monitoring program will contain a big game component to address impacts on big game species in the area. The loss of habitat most likely will not influence survival rates or result in population-level effects. To minimize disturbance on winter-range, seasonal restrictions during construction activities would be implemented between November 15 and March 15.

Table 8 Estimated Disturbance of Mule Deer Winter Range in the Wind Farm (Acres)

Proposal	Area of Winter Range (acres)	Number of Turbines in Winter Range	Temporary Disturbance (acres)	Permanent Disturbance (acres)
500MW Wind Farm Proposal	8,521	115	170	34
170MW Wind Farm Proposal	1,405	9	14	4

Vegetation/Weeds: With careful design, siting, and implementation of "Best Management Practice" and with application of the mitigation measures, no long-term adverse impacts are expected to occur to vegetative resources. As shown in Table 9, the total area of disturbance is greatly reduced with the down-sized project. There would be a permanent loss of vegetative cover on 14.3 acres of BLM land and 6.1 acres of State DNRC lands that will be occupied by facilities. There would be a temporary loss of vegetative cover on another 44.3 acres of public land and 25.1 acres of state land. Areas temporarily disturbed during construction and decommissioning activities will be reclaimed/restored to their original condition.

Although temporary construction areas will be reclaimed, surface disturbing activities will create an environment susceptible to weed establishment. Leafy Spurge and Spotted Knapweed occur in the area. A weed control and monitoring program will be stipulated in the BLM's Right-of-Way and the DNRC's Lease with Wind Hunter, LLC.

Table 9. Native Vegetation Disturbance Associated with the Wind Farm (Acres)

	500 MW Wind Farm Proposal (acres)	170M Wind Farm Proposal (acres)
Permanent Disturbance		
Native mixed-grass prairie	81.0	41.7
Native prairie with silver sage	7.8	0
Breaks	12.6	0
Subtotal	101.4	41.7
Temporary Disturbance		
Native mixed-grass prairie	372.1	143.0
Native prairie with silver sage	38.2	0
Breaks	61.4	0
Subtotal	471.7	143.0

Threatened and Endangered Species/Designated Sensitive Species: With careful design, siting, and implementation of "Best Management Practice" and with application of the mitigation measures, no long-term adverse impacts are expected to occur to T&E/designated sensitive species. The projected losses of species and habitat are not likely to contribute towards a trend for federal listing of any species or cause a loss of viability to the species.

Although Bald Eagles (federal threatened) do utilize the project area during the winter months as it contains a limited amount of potential foraging habitat, the construction and operation of the wind farm is expected to have low impact on eagles. The swift Fox (BLM sensitive) is known to occur in the wind farm area for the suitable habitat found there. While construction/decommissioning activities could potentially disturb Swift Fox in the area, it is unlikely that operation and maintenance activities would be of the intensity and frequency to create adverse effects. Pre-construction den surveys would be conducted and locations marked as avoidance areas to prevent accidental mortality.

No rare or sensitive plant species are known to occur in the area. A pre-construction survey will be completed and locations, if found, will be delineated to avoid during construction and decommissioning activities.

Fisheries: No habitat on BLM or state land.

Water Resources and Wetlands: With careful design, siting, and implementation of "Best Management Practice" and with application of the mitigation measures, no long-term adverse impacts are expected to occur to water resources, riparian areas, and wetlands. Construction/decommissioning activities will generate some erosion and the potential for

increased runoff and sediment delivery to nearby streams, causing some decrease in water quality. These impacts are short-term and are considered to be low to moderate in intensity with implementation of mitigation measures.

Geology and Geohazards: The greatest potential impact to geology of the area is with construction of new roads and the upgrading of existing roads and subsequent erosion. With careful design, siting, and implementation of "Best Management Practice" and with application of the mitigation measures, the impacts are not expected to be substantial.

Soils/Ground Disturbance: With careful design, siting, and implementation of "Best Management Practice" and with application of the mitigation measures, no long-term adverse impacts are expected to occur to soil resources. As shown in Table 10, ground disturbance is greatly reduced under the down-sized proposal. Permanent surface disturbance would be 14.3 acres on BLM administered land and 6.1 acres of disturbance on state land. Access routes into the transmission line structures and other temporarily disturbed areas that will not be occupied by facilities would be reseeded to minimize erosion.

Table 10 Temporary and Permanent Ground Disturbance (Acres)

	500MW Wind Farm Proposal			**170MW Wind Farm Proposal**		
Number of Turbines	334			114		
Acres	20,120			6,756		
Power Generated (MW)	500			170		
	Temporary	**Permanent**	**Total**	**Temporary**	**Permanent**	**Total**
O&M Building	2.0	2.0	***4.0***	2.0	2.0	***4.0***
Collector Substation	1.0	2.0	***3.0***	1.0	2.0	***3.0***
Collector System	81.6	0	***81.6***	25.6	0	***25.6***
New Access Road	8.7	5.8	***14.5***	8.7	5.8	***14.5***
Internal Road Network	94.9	170.8	***265.7***	26.9	48.4	***75.3***
Turbine String Turnaround Areas	22.0	0	***22.0***	7.6	0	***7.6***
Wind Turbine Foundations	0	1.0	***1.0***	0	0.4	***0.4***
Pad-Mounted Transformers	0	1.0	***0.9***	0	0.3	***0.3***
Turbine Work Areas/ Material Staging	334.0	0	***334.0***	114.0	0	***114.0***
TOTAL	**544.2**	**182.5**	***726.7***	**185.8**	**58.9**	***244.7***

Paleontology: The potential for occurrence of fossils is low to moderate depending on geologic unit encountered; the probability for significance of fossils discovered can vary from low to high. No long-term adverse impacts are expected to occur to paleontology resources and the potential for loss through theft, vandalism or accidental disturbance/damage is reduced with careful design, siting, and implementation of "Best Management Practice" and with application of the

mitigation measures. A field survey will be conducted by a qualified paleontologist, and if fossils are found, the site will be avoided or mitigated.

Cultural Resources, Native American Religious Concerns: The potential for occurrence of cultural resources is moderate to high depending on geologic unit encountered; the probability of significance of the cultural resources discovered can vary from low to high. No long-term adverse impacts are expected to occur to cultural resources and the potential for loss through theft, vandalism, or accidental disturbance/damage is reduced with careful design, siting, and implementation of "Best Management Practice" and with application of the mitigation measures. A field survey will be conducted by a qualified archaeologist, and if historic properties/heritage properties are found, they will be avoided or mitigated.

In order to determine the effects on cultural resources, the Area of Potential Effect (APE) on all state lands will be inventoried to BLM Class III standards. Subsequently, the DNRC archaeologist will review the report of findings and recommendations as it applies to state lands only. National Register listing eligibility determinations for cultural resources identified on state lands will be made in consultation between the DNRC archaeologist and the State Historical Preservation Officer (SHPO). Treatment plans for Heritage Properties (Historic Properties under the NHPA) within the APE on state lands will be drafted by the DNRC archaeologist. The decision as to whether or not to implement any Treatment Plans drafted by the DNRC archaeologist for cultural properties on state lands rests solely with the DNRC administration.

Health and Safety: Given industry design and safety measures to protect human health and the environment, and with careful design, siting, and implementation of "Best Management Practice" and with application of the mitigation measures, potential impacts to humans or most wildlife are expected to be low. Fire remains the primary health and safety risk. A fire plan will be prepared and submitted with the plan of development. Although Hazardous Substances may be use during construction, operation, maintenance, and decommissioning of the project, they will be properly contained. A plan will be prepared and submitted with the Plan of Development to address accidental spills.

Noise: This is defined as an unwanted sound. With careful design, siting, and implementation of "Best Management Practice" and with application of the mitigation measures, no long-term adverse impacts are expected to occur to humans and wildlife with noise issues; they should not exceed background levels for rural areas. Construction and decommissioning activities would involve the use of a variety of equipment and noise levels will vary depending on the type of equipment, operation schedule and condition of the area being worked. This is a short-term impact. Operation and maintenance activities would create noise sources of a mechanical and aerodynamic nature. The prevailing winds in the area are typically from a westerly direction which indicates noise would be carried away from the WSA/ACEC. Unless in close proximity to the wind towers and facilities, noise is not expected to be an issue to people, especially given the distance between the WSA and the towers. Noise from the power line is not expected to be an issue.

Air Quality: With careful design, siting, and implementation of "Best Management Practice" and with application of the mitigation measures, no long-term adverse impacts are expected to occur to humans and wildlife associated with air quality issues. Fugitive dust will be generated with construction and decommissioning activities, but this is short-term. The wind farm is not considered a combustion source and operating wind turbines do not produce emissions. During operation and maintenance of the wind farm and transmission line, vehicle travel would generate some emissions and fugitive dust, but this is considered minimal.